Reviewer's report

Title: Adherence to treatment to help quit smoking: effects of task performance and coping with withdrawal symptoms

Version: 6 Date: 15 October 2014

Reviewer: Francesco Pistelli

Reviewer's report:

General comment
The paper is further improved but, in the opinion of this reviewer, it remains to clarify how "abstinence" was defined and assessed.

Major Compulsory Revisions

1. In the section "Methods", last paragraph, it is stated: "Abstinence was defined as having not smoked for 7 consecutive days in the past 3, 6 and 12 months, respectively". Based on this definition, a persistent smoker could be classified as abstinent, just not having smoked for 7 consecutive days, for example, in a single week in the 12 months preceding the clinical visit. Usually, in smoking cessation studies, "continuous abstinence" is defined as not having smoked (not even a puff) since the target quit day, as confirmed by measure of expired carbon monoxide. Thus, definition of abstinence should be clarified in the Methods section. Moreover, the aim of the study ("This study aimed to identify predictors of continuous abstinence ...") should be better defined both in the abstract and in the text. Indeed, point-prevalence abstinence, rather than continuous abstinence, was assessed in the present study.

2. "7-day and 30-day point prevalence", as secondary measures of abstinence, are defined in the Methods section, last paragraph. The results of these measures should be reported and discussed in the Results and Discussion section.

3. As previously suggested, in the section "Methods" it should be reported the baseline reference for scheduling the end-points assessment "at 3, 6, 12 months". In Discussion and conclusions section, first paragraph, it is reported that the three endpoints "3, 6, and 12 months" were set "after the start of the treatment". What "treatment" refers to? For example: start of varenicline; the first clinical visit; the second phase of the program (consisting of 6 sessions that aimed to maintain abstinence), etc.

4. The smoking cessation program should be clarified. Did the subjects start the second phase of the program only if they were abstinent? (see Methods section, 3rd paragraph: "The first phase included a personalized number of sessions until abstinence was reached"). It could be supposed that the behavioural intervention started since the beginning of the program, but it is mentioned only for the
second phase. Starting the pharmacological treatment with varenicline only when a smoker had reduced tobacco consumption by 80% is an ad hoc/empirical scheme and the reason for choosing such an approach should be discussed.

Minor Essential Revisions

5. In the legend of table 1 and in the text describing the results presented in table 1, it should be reported what definition of abstinence was applied, according to definitions proposed in the Methods section.

6. The figures 1-4 lack of a legend.

7. The title of tables 2-4 should explain the analysis/results which they report, analogously to the titles of tables 5-6.

Level of interest: An article of limited interest

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:

I declare that I have no competing interests